We claim:

1. A method, comprising:
selecting at least one microelectrode recording (MER);
processing the at least one MER to obtain an associated array of values; and
displaying the array of values.

2. The method of claim 1, wherein the MER is processed to obtain a power spectral density or a probability density.

3. The method of claim 1, wherein the at least MER is selected based on an insertion depth at which the at least MER is recorded.

4. The method of claim 1, further comprising classifying the at least one MER based on the array of values.

5. The method of claim 1, further comprising processing the MER so that the array of values is associated with numbers of spikes in a first window and a second window.

6. The method of claim 5, wherein the first window and the second window are adjacent windows and have predetermined durations

7. The method of claim 5, wherein the first window and the second window are adjacent windows having a common duration.

8. The method of claim 1, wherein MERs associated with a plurality of electrode insertion depths are selected, and corresponding arrays of values are produced.

9. The method of claim 8, wherein the arrays of values are displayed as a function of insertion depth.

10. An apparatus, comprising:

a sampler configured to receive a microelectrode electrical signal (MES) and produce a sampled representation of the MES;

a memory configured to store a series of values based on the sampled representation; and

a processor configured to produce arrays of processed values based on the sampled representation and selected processing parameters.

11. The apparatus of claim 10, further comprising a processor input configured to receive the selected processing parameters.

12. The apparatus of claim 10, wherein the processing parameters are associated with at least one of power spectral density and probability density.

13. The apparatus of claim 10, wherein the processor input is configured to receive a window duration for at least a first window and a second window, and the processor is configured to produce the arrays of processed values based on numbers of spikes in the first window and the second window.

14. A display method, comprising:

receiving a plurality of microelectrode recordings associated with respective electrode insertion depths;

producing an associated array of values for each recording; and

displaying the associated array of values as a function of electrode insertion depth.

15. The method of claim 14, wherein the associated array of values is based on a power spectral density.

16. A method, comprising:

receiving microelectrode recordings associated with respective insertion depths; and

estimating a rate of change of spike rate based on the received microelectrode recordings.

17. The method of claim 16, further comprising displaying the estimated rate of change of spike rate as a function of insertion depth.

18. The method of claim 16, further comprising associating a brain feature with an insertion depth based on the rate of change of spike rate.

19. The method of claim 16, wherein the rate of change of spike rate is estimated based on numbers of spikes in a first window and a second window.

20. An apparatus, comprising:

an input configured to receive a plurality of microelectrode recordings;

a processor configured to produce an estimate of a rate of change of spike rate as a function of insertion depth based on the microelectrode recordings.

21. The apparatus of claim 20, further comprising a display configured to display the rate of change of spike rate as a function of insertion depth.

22. The apparatus of claim 20, further comprising a classification engine configured to produce a brain feature classifier based on the microelectrode recordings.

23. A processing method, comprising:

receiving a microelectrode recording;

processing the microelectrode recording to produce an array of processed values; and

associating the microelectrode recording with a particular brain region based on the processed values.

24. The method of claim 23, wherein the processed values are associated with a power spectral density.

25. The method of claim 23, wherein the processed values are associated with a rate of change of spike rate.